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EXAMINER

KOPPIKAR, VIVEK D

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 06/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,041

Applicant(s)

ONO, NORIHIKO

Examiner

Vivek D Koppikar

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 8, 12 and 16 are objected to because of the following informalities: In line 1 of Claim 8 “claims” should be “claim”.

In claim 12, line 4 “power” should be “powder”.

In claim 16, line 4 “surface” should be “surfaces.”

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8 it is not clear to the examiner what limitation the phrase “said at least one having an outer peripheral surface which is press contacted with the other roll to have a depressed portion engaged with the outer peripheral surface of the other roll.” is defining. Appropriate correction and/or clarification is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Number 4,696,725 to Ochiai et al.

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With regard to Claim 1, Ochiai teaches a process for producing a magnetic core which involves compression molding (annealing) and mixing soft magnetic powder (iron) with a solvent and a binder (Col. 3, Ln. 7-32 and Col. 4, Ln. 40-48) to form a slurry mixture. Next this mixture is formed into a film and the solvent is then removed by leaving the film in the air (Col. 4, Ln. 52-68 and Col. 5, Ln. 15-30).

With regard to Claims 2 and 3, the magnetic powder is subjected to treatment with a coupling agent which can be chosen from either a titanium or silane based coupling agent (Col. 4, Ln. 14-48).

With regard to Claim 4, in one embodiment polyethylene is used as a binder to form the magnetic slurry mixture (Col. 3, Ln. 19-20).

With regard to Claim 11, a composite magnetic body is formed by the process of Ochiai (Col. 5, Ln. 28-30).

With regard to Claims 12-14, the process of Ochiai forms a composite magnetic body that has been subjected to annealing (Col. 5, Ln. 3-13) and the magnetic powder is mixed with a binder (coupling agent) (Col. 4, Ln. 14-60).

With regard to Claim 15, the binder in one embodiment of Ochiai is polyethylene (Col. 3, Ln. 19-20).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 4,696,725 to Ochiai as applied to Claim 1 above and in further view of EP 0 854 669 to Yahagi.

Ochiai does not teach that the magnetic core is pressed into a sheet.

Yahagi teaches that a magnetic powder which is subjected to annealing and mixing with a binder and coupling agent is subsequently rolled into a composite sheet (Page 3, Ln. 25-35 and Page 4, Ln. 31-36).

Ochiai does not teach that the magnetic core is formed into a sheet using layering or pressing. However Yahagi teaches that the magnetic film is rolled into sheets (Page 5, Ln. 33-35) using a rolling mill comprising a plurality of rolls (mixing roller and fine roller) and the sheet is pressed between the plurality of rolls (Page 8, Ln. 41-48). A rubber calendaring roller is used to press the sheets (Page 4, Ln. 30-36). Adhesive is also applied to the magnetic sheets using rollers (Page 5, Ln. 36-40).

At the time of the invention one of ordinary skill in the art would have used the process of Yahagi with the expectation of turning the magnetic core taught by Ochiai into magnetic sheets with surface deformable patterns and adhesive layers in order to facilitate adhesion of the magnetic sheet onto the surfaces of the objects to be shielded as recited in Yahagi (Page 5, Ln. 36-40).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 4,696,725 to Ochiai in view of EP 0 854 669 to Yahagi as applied to Claim 9 and in further view of US Patent Number 4,275,113 to Saito.

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9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 4,696,725 to Ochiai as applied to Claim 12 above and in further view of US Patent Number 4,275,113 to Saito.

10. Ochiai and Yahagi do not show a conductive material interposed between the magnetic sheets.


Saito discloses a conductive material interposed between the magnetic sheets because it provides better adhesiveness of the magnetic layer to the carrier sheet (Col. 1, Ln. 1-11 and Col. 11, Ln. 4-17). At the time of the invention one of ordinary skill in the art would have been motivated to add a conductive layer between the magnetic sheets disclosed by Ochiai in view of Yahagi with the expectation of increasing the adhesion properties of the magnetic sheet.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Vivek Koppikar** whose telephone number is **(703) 305-6618**. The examiner can normally be reached on Monday-Friday from 8 AM to 5 PM, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones, can be reached at (703) 308-3822. The fax phone numbers for the organization where this application or proceeding are assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications. The examiner's desktop fax number is (703) 746-3983.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Vivek Koppikar

5/28/03

  
DEBORAH JONES  
SUPERVISORY PATENT EXAMINER